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ABSTRACT

Assuming that benefits would accrue to students if their counselors could work with the parents--because of the support and nurture received at home being so important to school achievement--counselors held weekly consultations with parents of underachievers in the Lexington, Massachusetts, Public Schools. Weekly inservice seminars were also conducted with the counseling staff to systematically train members in the use of parent counseling as a therapeutic tool. The students' levels and grades were weighted to allow comparison throughout elementary, junior high and high school. There was an overall improvement in grade point average, particularly at the junior high level. Most parents indicated that they were praising their children more and doing more things with and for them, and felt the children worked harder and were more independent. Current ego psychology is used to explain the results. The increase in trustworthiness, reassurance and reward, in the environment, allows the child's ego to function on a more effective level and hence he will grow and develop in the role that is expected of him, namely his schoolwork. Illustrative cases are cited, and the practice of parent counseling is encouraged. (KS)

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Parent Counseling and Academic Achievement:

Progress Report on the Initiation of a System - Wide Parental Consultation Program

by

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Presented at the 1969 APGA Convention in Las Vegas, Nevada

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A parent - counseling study involving the families of over 50 underachieving boys and girls has been in process in Lexington, Massachusetts for the past two years. Through a series of weekly in-service seminars led by Dr. Gilmore, Lexington is testing the value of systematically training counselors to use parent consultation as a therapeutic tool. The school system now has counselors who have participated in these seminars in all its secondary schools and several elementary schools.

Lexington is a bedroom community in Metropolitan Boston with a per capita income of approximately $16,000 a year. There is a heavy emphasis on academic preparation for college and a high percentage of students enter 4-year colleges. The aspirations of the community as a whole tend to reflect the orientation of this majority. Therefore, any generalizations we make concerning the significance of results must be understood as ocurring in a specific social context. Also, the project was done in a working on-going school system, not an experimental laboratory. Therefore, although we have made a conscientious effort to control pertinent variables, the idiosyncracies of independent individuals tend to loosen desirable control. This is not to excuse the project, but to explain it.

The students chosen for this project may be classified as moderate underachievers. They were boys and girls who had earned a final average of C at an average level the previous year, and had scored for 115-125 on paper and pencil IQ tests. From the pool of names thus assembled, controls and subjects were randomly assigned. Parents were invited to participate as in Mr. Brinton's study. Each counselor worked with 2-6 sets of parents for 15 weeks in half-hour meetings. The first year, 27 families were involved in the project. This year, there are an additional 27 plus 20 others who do not fit our project criteria. Results of comparisons of the experimental group with their controls

will be summarized at the end of this paper. Three brief case studies all illustrate better than any numbers, however, the process we are discussing.

Case #1 - a more or less unqualified success

Elmer was one of that large number of 7th grade students who are academic ciphers: no serious academic, personal, or social problems, and no obvious lustre. Dr. and Mrs. Johnson received a letter in early October of 1967 inviting them to participate in this project and stating that it would be desirable for both parents to plan to attend. They were asked for their consent to have all sessions taped as a future teaching device. The Johnsons enthusiastically agreed to come and we settled on evening meetings since they could not otherwise have participated.

During the first interview, it was learned that the Johnsons had five children, the oldest being 22, and the youngest still an infant. Elmer and his sister, Connie, one year older, are the only ones now in the public schools. Dr. Johnson is a geo-physicist and Mrs. Johnson is a college-educated housewife. They reported that Elmer never showed them any school work, rarely talked about school, was supposed to study one hour a night, but they didn't know what he actually did during that time, and watched "too much" television. He tended to be slipshod in carrying out household responsibilities. He did not get an allowance because a pot of change is kept on the kitchen table and is dipped into ad lib by all family members for daily necessities and small pleasures. He has considerable talent in art, enjoys tinkering with electronic gadgets with his father, and is an avid but not terribly inspired ice hockey and baseball player. His mother was particularly concerned with a reading and spelling

problem which she felt were at the root of his difficulties. Neither parent knew the names of any of his teachers and both agreed that they were often critical of Elmer when he did not live up to expectations.

The Johnsons were a very pleasant, placid couple who were very slow and deliberate in speech. They appeared to be sympathetic, affectionate, and supporting of each other at all times. During our fifteen-week contacts they slowly, in their own time, and in their own way, followed through on all those suggestions which could be incorporated into their life-style, and adapted and invented many others to suit themselves.

No predetermined schedule of interview topics is followed, but there exists a certain logical order which generally evolves. For instance, it is desirable for parents to be in on what is happening at school: their children won't tell them if they have been consistently, or even intermittently, ignored, teased, criticized or warned following some disclosure. Therefore, we suggest to parents, often as a form of "homework' for the first week, to suddenly, drastically, noticeably, cut down on criticism and punishment, even concerning non-school related behaviors and concurrently look for and find things for which to praise and compliment the child. This is to be followed by the parents' verbally expressing an interest in the child's activities in and out of school, while taking care to avoid creating aversive situations through negative commentary. This pattern lays the groundwork for further structure. We have seen that parents who have difficulty with this step also have continuing difficulty in encouraging lasting academic changes in their children. I must also mention the obvious, but often forgotten point, that every set of parents has a unique set of behaviors which are not amenable to change through force or haste. Therefore, variations in timing and implementation do occur, and, in fact, are desirable because they promote a necessary individualism in their children.

The Johnsons tried out the initial recommendation immediately and reported with some surprise the next week that Elmer had asked his mother to help him review for a spelling test and had consequently earned an A. During the following weeks, the consultations sessions were primarily concerned with motivational issues: i.e. use of praise, parent time, and sporadic and spontaneous concrete rewards as reinforcers of desirable behavior. We discussed at length the desirability and possibility of capitalizing on Dr. Johnson's limited time at home to provide a leadership model within the family. Underlying many of these issues was a basic concern which was only occasionally explicit: how do we let our children know that we love them. For a Yankee family whose roots of reserve run deep, feelings of affection and regard for the children were often lost in the noise of daily living.

The Johnsons eventually made the following changes: they had family conferences during which they discussed such things as allowances, parental nagging, and family recreational activities. Reasonable guidelines for procedure, and limits which were acceptable to the majority, were eventually arrived at. Dr. Johnson spent increased time with Elmer building a radio and brought home a number of electronic magazines he thought Elmer might like to read. He, himself, also began to read Mad Magazine and Peanuts occasionally because Elmer enjoyed them a great deal. Both Dr. and Mrs. Johnson talked with many of Elmer's teachers and had particular contact with those teaching the subjects he found most difficult. In one case, Mrs. Johnson found herself agreeing with Elmer's negative reaction to a teacher and was able to provide him with sufficient support and help in the subject that he did not go below a "gentleman C." About four or five weeks into the consultation sessions, Elmer went into a slump and several interviews were spent discussing reading problems. We briefly explored the school's resources in this regard and then

returned to finding ways in which they might encourage reading at home. Gradually, as Elmer's school work improved more and more obviously, they expressed less concern over reading itself.

Shortly after Christmas, Elmer was transferred from the average level in math and science to the accelerated level on the recommendation of the teachers. Neither teacher had been informed of my contacts with the family. (There is no evidence from other cases, however, to indicate that teacher awareness of the parent involvement, per se, creates changes in perception of the child's school performance.) Elmer eventually completed the seventh grade with B's in all but one course (two of them at the accelerated level) and has continued at that level of performance this year (he had all A's and B's at the mid-term) and is to be recommended for Honors courses in math and science at the high school next year.

Concurrently with his increased academic output, his parents reported that while he had wanted to be a professional athlete last September, this underwent considerable modification during the course of the year. First, he decided to play ball for a college team for a couple of years, then decided to be a physical education teacher, then a biologist and finally a biochemist. It is assumed that further revisions will precede a definite commitment, but the pattern is from a primarily non-academic goal to an academic one.

At the termination of parental contact, I asked the parents a series of open-ended questions relative to the experience they had undergone. Mrs. Johnson noted that Connie, Elmer's older sister, had, of necessity, to be treated in a manner similar to Elmer and there had been a noticeable change for the better in both her attitude and grades. Dr. Johnson commented that although he had learned this process as a body of psychological principles in college, he had never known how to apply them at home until this year.

Finally, he noted with considerable good humor the coincidental fact that Elmer had become a talented ice hockey player.

Case #2 - a failure of sorts

Joannie was chosen as a subject with test scores, school grades, and placement nearly identical to Elmer's. Mr. Campanella responded quickly to the letter, glad we had finally "found out" about Joannie - they'd been having trouble with her at home, too. When I hastily reassured him that no behavior or discipline problem was involved, he said that she lacked the proper respect for her parents.

Mrs. Campanella is a still-attractive high-school-educated housewife in her middle 30's, with a long history of high blood pressure. Mr. Campanella is a compact, neat man, sharply dressed, with a thin moustache. He has earned an associates degree plus some credits following a great many years of night courses and is employed as a freelance photographer. He and Mrs. Campanella disagreed often; the most affectionate remark Mr. Campanella made in three months concerned his resentment of his daughter's insulting comments to her mother. The family consisted of Donna in 9th grade, Joannie in 7th and a boy and girl in elementary school. Mr. Campanella's job was erratic. He would occasionally not work for a week or more, then be tearingly busy for 10 days, then be out of town for three more, then lack work again. They had one car and an undependable income which created considerable friction between mother and father.

They felt that Joannie's lack of school achievment was the least of their difficulties with her. They could think of only two good things about her: invariably she remembered to send her parents anniversary and birthday cards when none of the other children did, and she is attractive and popular with her peers. Otherwise, she was initially described as lazy, sloppy, dis-

respectful, demanding and unloving, with poor table manners and no gratitude toward her parents.

The parents were hesitant about changing their approach with Joannie. Even though they could acknowledge that verbal and physical punishment as applied in the past had not produced the results they wanted, they needed enormous support from me to take the first step to change. Mr. Campanella could not bring himself even then, or at any time, to make any spontaneously affectionate or supportive remark to Joannie which she was not expected to reciprocate, or which was not tied to an implied or explicit reprimand. He did, however, drastically reduce the level and frequency of his critical remarks to Joannie. At times, this resulted in his virtual withdrawal from family activity. Mrs. Campanella, on the other hand, made an attempt to follow the various recommendations and gradually, with practice, was able to recognize Joannie's strategy of intimidation by guilt (in effect, "You're a lousy mother because you.....") and did not allow herself to be drawn into arguments which she could only win at high cost to her own and Joannie's self-respect. She learned to set limits at reasonable, and supportable points, rather than arbitrarily at the spur of the moment. At the same time, she became much more liberal and praising - she was surprised to find a great many things for which she could legitimately commend Joannie once she stopped to think about it.

Gradually, she found that Joannie sought her out to discuss serious concerns like boys, school, money, and sex. Mrs. Campanella reflected on how difficult it was to avoid being judgmental or sarcastic, as was her previous custom. After several weeks, she reported that Joannie seemed to like her home better now; she brought her friends over in the afternoon, and introduced them politely to her mother instead of insulting her mother in front

of them as she had done in the past. For seven weeks, Mrs. Campanella made a diligent effort to adopt, adapt, and interpret recommendations and suggestions to promote an atmosphere more conducive to higher school achievement. Although she and Joannie still made a bad scene occasionally, she acknowledged her satisfaction with the decrease in interpersonal tension. She also noted that Joannie spent more time on homework (sometimes as much as two hours), showed her completed work spontaneously, and asked for help appropriately.

Mr. and Mrs. Campanella often mentioned the difference between this approach and the way in which Mr. Campanella had been brought up in the depression, often on relief, by a rigid, authoritarian Italian immigrant father and silent, submissive mother who demanded only to be kissed every time someone entered or left the house. Mr. Campanella did not honestly like the way He was treated as a child, but felt that if he were to adopt a different attitude with his own children, it would be a tacit repudiation of all he had been taught to respect and honor. Mrs. Campanella said that it was difficult to be honest with him, or involve him in family policy matters, and that he was most amenable when she employed a strategy similar to the one she used with Joannie. In effect, he was another child.

At the beginning of the eighth week, Mrs. Campanella went to the hospital for two weeks with a series of uncontrollable nosebleeds. During that time, Mr. Campanella called several times to praise Joannie highly; she no longer acted like the 7th grader she was, but admirably assumed many household and social responsibilities. Her school grades soared and she was recommended to a higher level in one subject. When Mrs. Campanella returned home, Joannie sulked and was instructed by both mother and father not to be the cause of her mother's return to the hospital - with the implication that a return might be fatal. Mr. Campanella came to the interviews with his wife on two more

occasions, but it was obvious that he felt that the trouble with Joannie was Mrs. Campanella, me and the (what he called "permissive") system; he ridiculed her continued attendance and refused to provide her with transportation to the school. Mrs. Campanella continued to attend alone, however, until the agreed-upon termination date. It was obvious that she was under considerable strain during this period. She was able to continue her efforts with Joannie and the household, however, and gradually Joannie's sulks subsided.

The third marking period brought Joannie the best report card she had had for four years and there was a good deal of celebration. I was somewhat apprehensive about Mrs. Campanella's feelings that Joannie was now "over the hump" and from now on things would go well. During follow-up interviews in the spring, Mrs. Campanella stated that things were still going well, but that she "didn't think Joannie was studying as much, it being spring and all." The 4th marking period brought lower grades, which although considerably higher than the 1st marking period, caused a final average not significantly different from 6th grade.

This year, Joannie started off badly, worse than any other student whose parents I worked with, but she recovered by the second marking period. In retrospect, we are aware that our failure to involve Mr. Campanella in a more positive way was probably a major factor in the mixed results we obtained with this family.

Case #3 - successful

The third case involved a family of eight children and two previously married parents. Tom, the student in question, was Mrs. Swenson's middle child of five. His father had died when Tom was six and his mother remarried five years later. Mrs. Swenson's two older sons had a history of academic and personal difficulty.

Both Mr. and Mrs. Swenson were high school graduates. Mr. Swenson, a foreman in a sheet-metal factory, described himself as a "near illiterate" who had gotten through high school on the athletic teams. They were very enthusiastic about the consultation service we provided because of the frustration they felt at coping with their unwieldy family. Crises occured with frightening regularity and interpersonal conflict over mundane household matters like the telephone, chores, and time schedules was constant.

As time went on, the Swensons were able to deal with these superficial household tensions more appropriately, which in turn allowed them to build more positive relationships with their children. Mr. Swenson realized the demoralizing effect of his anger on the children and he consciously, and with enormous effort, strove to express it in a less formidable manner. At one point, he said that he wished he had been brought up as he was learning to bring up his children. The family began to go, en masse, to athletic events in which one or another of the children was participating. They established a "quiet hour" which all the children observed, and help or sympathy on homework was given at that time.

Tom's poorly disciplined previous behavior improved considerably. His effort and conduct grades went up, as well as grades in those subjects in which success is largely attitudinal - like health, music, and art. In addition, he built an interest in science into a strong A which he carried through the year. Concurrently, and perhaps incidentally, the Swensons reported improvement in several of their other children. Although there has been a slight increase this year in activities requiring disciplinary action, the gains he made last year have been maintained.

T-tests, measuring the significance in grade point averages, were used to analyze the data. Two measures of change have been used:

1. The subjects were used as their own controls on a pre-post basis.

2. The subjects as a group were compared with the control group pre and post counseling. I will briefly summarize the significant findings. At the start of counseling, there is no significant difference in grade point average between the experimental and control groups. At both the high school and junior high school levels, the trend of counseled groups is toward a higher point average, with the most significant changes taking place at the junior high school level. This trend holds for the two project years. There is significant evidence that counseled groups retain their advantage a year following the termination of counseling.

Specifically, the junior high school results show that when the grade point averages of experimentals are compared pre and post counselingm there is improvement significant at the .05 level of confidence. When experimentals are compared with their controls at the end of the 7th grade, the results show significant differences greater than .01 because while the experimentals go up, the controls go down.

In plain language, the average change in junior high school was from grades of C in all major subjects to 1 C, 1 C+, and 3 B's post counseling while the controls who started with C's ended with 4C's and 1 D.

There are no significant differences in the experimental high school group either last year or this year when their grade point averages are compared pre and post counseling; however, nine months post counseling differences between experimentals and controls tended toward significance (at the .15) level due to the lowered academic standing of the control group while the experimental group maintained its standing. This trend will be followed

to determine its strength. Subsequent years and a larger sample are necessary to demonstrate this finding more conclusively.

In addition to the project, several counselors and counseling interns have been working with numerous families with problems outside the range of the project. These include single parent homes, families of slow-learning students, families of extremely bright underachievers, stutterers and families with problem children who are not necessarily in academic difficulty. These families are self-referrals and all of us who are involved with parents in this way are encouraged by the positive feedback we receive from parents, students, and teachers to believe we are on the right track.

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Lexington Public Schools
Lexington, Massachusetts

Dr. Jack H. Monderer
Director of Pupil Personnel Services

LEXINGTON PARENT-COUNSELING PROJECT

Submitted by Professor John Gilmore, Boston University, and Mrs. Katherine Pigott, Counselor, Diamond Junior High School.

Many members of the Pupil Personnel Services staff in the Lexington Public Schools have been cognizant of the possible benefits to students which might accrue if they were able to affect the child's home environment by working with the parents. Educators are constantly searching for improved methods to aid the child's development. In view of increasing evidence from research, the most important single factor in a child's school achievement is the support and nurturance he receives from his home. Schools, however, have traditionally maintained a polite distance from the families they serve with occasional instances of either cooperation or mutually constructive forays. Although the Pupil Personnel Services considered it their responsibility to work with parents, there has not been a program designed by P.P.S. to provide parents with a consulting service on a continuing basis.

During the spring of 1966, Dr. Norman Paul was contracted by the Lexington school system to provide an hour each week of consulting time to the secondary counselors. It gradually became apparent, however, that most counselors lacked the support and/or expertise to work with parents. Those who acknowledged the necessity, nevertheless required administrative sanction and training before embarking on a new role. Coincidentally with Dr. Paul's seminars, Bouchard and K. Pigott wrote a paper outlining a proposal to initiate parental consulting. Although the reaction to the proposal was positive, there seemed to be no way of incorporating parental counselihg into the formal organization of the counselor's role without prior proof of its efficacy.

In the spring of 1967, the work of Dr. John V. Gilmore, professor of Psychology, School of Education at Boston University, was published. He had been consulting with parents of under-achievers at Meadowbrook Junior High School in Newton while conducting in-service seminars with the counseling staff. The overall improvement in the grades of the students of the parents who were counseled was quite significant - certainly enough to warrant replication of the project with another population. Dr. Gilmore was invited to speak to the members of the Pupil Personnel Services staff and Dr. Monderer wrote a proposal to obtain the necessary funding. In early October, Dr. Gilmore began weekly meetings for two hours with a group of six counselors, (two elementary, two junior high, two high school). Weekly parental consultations were initiated about the same time.

Selection of Parents

The criteria for choosing the families for counseling was based on marks and I.Q. or aptitude test results. The first requirement was that grades obtained the previous year were to average "C", and the level or phase placement had to be average or low average for Lexington. The second requirement was that the results on the child's most recent Lorge-Thorndike I.Q. tests and/or the A.P.T. or SCAT had to place the student between the 75th and 95th percentiles nationally.

Each counselor selected a pool of students who fit these criteria and from this pool selected at random the number of cases he wished to pursue. Letters were sent

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to the families of these students inviting them to participate. The rate of response varied from school to school. Most counselors found it necessary to send out a supplementary mailing of from one to five letters in order to meet the quote of parents with whom they wished to work. There were several reasons for this initial difficulty:

1. Inability to establish a regular meeting time to which both parents and the counselor could commit themselves.

2. Parental satisfaction with the child's present level of achievement -- even at the "C" level.

3. Approximately 15 per cent of the parents did not respond to the letters.

Once the participants were selected, a group of students from the original pool of underachievers were matched against them and served as controls for the study. The families in the control did not receive letters.

There were a total of 27*- participating families in the study with seven counselors including Dr. Gilmore. The participating families had a total of approximately 60 children of school age. In most cases, counselors made an effort to insure that both parents would be able to attend regularly, thus necessitating evening interviews. These counselors returned to the school one evening a week for between one-half to two hours. Fortunately, most parents were seen regularly as a couple because of this arrangement of counseling hours. However, of the 27 families there was one single parent home, one in which the father was mentally ill and unable to attend, and two others in which the father was unable to attend due to the nature of his employment.

All the parents continued through the course of interviews terminating between the 13th and 15th session. Monthly follow-up interviews were then held until May, 1968. At the final session most counselors asked parents a number of questions about their experience.

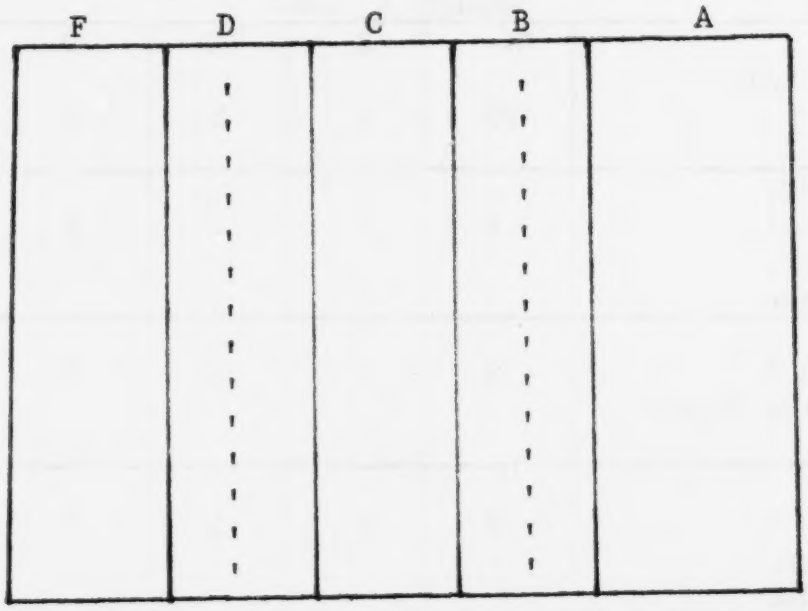
Collection and Reporting of Results

Due to the variations in the marking systems at Lexington, it was necessary to impose some uniform base from which to measure results. Therefore, for the purposes of this study, the elementary, junior, and senior high school marking systems have been reduced to a common weighting. We realize that this works a major injustice on, in particular, the philosophy and intention of the elementary reporting procedures, and assumes a standard interpretation of the graph from teacher to teacher, but given the post hoc data at our command we were forced to construct some form of chart in order to report changes in the child's academic achievement.

The elementary school: - The report card contains no grades, as such. Each student is rated on a continuum ranging from "Needs Improvement" through "Satisfactory" to "Excellent" in each subject and note is made of the "Level of Instruction" at the time of reporting. For example, one student in fourth grade may be doing satisfactory work at level 3 while his classmate does satisfactory work at level 5. The report card also contains separate continua for reading, language, spelling, and handwriting. In order to provide an instrument for measuring

*26 families completed the project.

"change", it was necessary to quantify placement and level on each continum as well as group together those skills normally taught as a package in the secondary schools.



After some experimentation the above graph, enlarged and drawn on tracing paper, was superimposed on the report cards of all elementary students, control and experimental for 1966-67 and 1967-68. It was all used to ascertain the final sixth grade average of those 7th graders in the study. Since there were four reporting periods, an average was arrived at by visual scan. In the case of split grades, i.e. 2 D's and 2 C's, the higher grade was taken in all cases.

The scope and sequence designation given to math levels at the elementary school was stratified as indicated below. In all cases, the highest level reached during the year in question served as the basis for level placement.

	6	5	4	3	2
AP	18+	16+	14+	12+	
1 yr. above	16-17	14-15	12-13	10-11	8-9
grade level	14-15	12-13	10-11	8-9	5-6-7
1 yr. below	12-13	10-11	8-9	6-7	3-4
2 yr. below	9-10-11	7-8-9	5-6-7	3-4-5	1-2

The secondary school: --Each major subject may be taken at any one of a number of levels in the high school (AP, Honors, A, B, or C) or phases in the junior high school (AP, 4, 3, 2, 1), and the full range of grades is possible within each level. Although there are individual differences in class compositions and yearly variation in interpretation of these differences, in general, the differences betweel levels is clear-cut and easily apparent to students and teachers.

Standardization model: -- To standardize these various facts, level and grade were combined into a weighted numerical score which permits comparison between grade levels. The following is the model used throughout the study to measure change in both control and experimental groups.

GRADES - MARKS

	A	B	C	D	F
AP - all levels	10	9	8	7	6
H.S. - Honors Jr. H. - ph 4 Elem. - 1 yr. above grade	9	9	7	6	5
H.S. - A Jr. H. - ph 3 Elem. - grade level	8	7	6	5	4
H.S. - B Jr. H. - ph 2 Elem. - 1 yr. below grade	7	6	5	4	3
H.S. - C Jr. H. - ph 1 Elem. - 2 yrs. below grade	6	5	4	3	2

Note: Grades of F were assigned a numerical value higher than zero to prevent spuriously low averages resulting from one failed subject.

Standard scores were assigned to the final grade in each major subject in 1966-67 for students at all levels. These scores were added together to form a final total. A similar procedure was followed for grades received at the close of the first and third marking period of 1967-68. The results are reported on the following page.

Interpretation of Results

Each point of the difference in totals between the columns for any one individual may be interpreted as a change in one earned grade that marking period, or a change in one level (phase) placement. For example, a child who goes from a total of 30 in the first marking period to 33 in the third might have progressed from all C's to three B's and two C's, or to a higher level in three subjects, or had some combination of these two possibilities which could affect his score. Of course, the converse is true in the case of those students whose progression has been downward. It is anticipated that it will be necessary to take repeated measurements of this type on these subjects in order to determine the reliability of these marks.

Results

Table I

Changes in grade points between end of year 1967 and 1968 in Experimental and Control groups involved in Parental Counseling project in Lexington schools.

	Grade 5&6 5 students		Grade 7 10 students		Grade 9 5 students		Grade 10&11 6 students	
	E	C	E	C	E	C	E	C
Improved (one or more points)	-	3	9	1	1		2	1
Same	3	1	1	4	1	1	1	2
Lost (one or more points)	0	1	0	5	3	4	3	3

E = Experimental group (parents counseled)
C = Control group (parents not counseled)

A glance at Table I reveals considerable improvement (in the academic grades of) in the students whose parents had been counseled when a comparison is made with those students whose parents had not been counseled (the control group). The improvement is greater in the fifth, sixth, and seventh grades than in the ninth, tenth, and eleventh grades. In the seventh grade, both junior high schools' improvement has been quite dramatic. An improvement in the ninth grade and in the tenth and eleventh grades is also of significance. When all 26 students are considered, there was an improvement of one or more grade points according to the weights as they are assigned in the chart presented earlier. Fifty-four per cent of the experimental group improved one or more points; 23 per cent remained the same as they had been the previous year, and 23 per cent lost points when the end of the year grades from 1967 to 1968 were compared. In the control group, only 19 per cent of

the 26 involved in the project rose one or more weighted points. Thirty per cent of this control group remained the same, and 50 per cent of this same group lost one or more points when the years 1967 to 1968 were compared.

There are various methods of comparing the results and the effectiveness of such a project in counseling techniques. The improvement (of the experimental over the control) of one or more points (which means one or more letter grades) does not give a complete and meaningful picture of the results. Significant or meaningful gains for the project should involve changes in grades or changes in scores of at least two or more points. Two or more points would indicate an improvement of at least one letter grade in two subjects. When the experimental and control groups were compared with an improvement of two or more points, it is found that 13 of the experimental group improved two or more points with six of the students improved two or more points. In regard to the number of points lost when the 1968 grades are compared with 1967, we find the experimental group lost two or more points and the control group lost ten or more points.

Another approach to the evaluation of changes in grades during the year is to average the points. In the elementary school with five students in each of the two groups, we find improvement of 1.4 points in the experimental group and 1.0 in the control group. In the junior high school, where there were ten students involved in the seventh grade, we find an improvement of 3.3 in the experimental group and a loss of 1.0 points on the average in the control group. This would mean that on the average, each of these ten students had improved one letter grade in approximately three subjects and that the ten students in the control group had gone down at least one letter grade in one subject. In the ninth grade, the five students, on the average, lost one letter grade in one subject in the experimental group, and in the control group they lost one letter grade in approximately two subjects. In the tenth and eleventh grades, the average loss was .40, which means, on the whole, that the six students remain approximately the same with a slight loss for some of them. In the control group, there was an average loss of a letter grade in two subjects. When dealing with such small numbers, averages are always misleading and can be distorted by extreme cases. In the ninth grade group, there was one student in the experimental group whose grade average dropped rather dramatically during the year, and in the senior high school control group one tenth grade girl dropped nine points in 1968 in letter grades when a comparison was made with those of 1967. When these large losses are averaged in with five other students, the average becomes somewhat meaningless. If the average for the other five high school students is computed for the control group, the average is approximately -.8 which is about the same as it was in the experimental group.

The junior high school or the seventh grade group results are most encouraging. In the seventh grade group, the greatest gains were secured. When the grades for the ten students at the end of 1967 were compared with the ones at the end of 1968, we find that 90 per cent of them have improved and 10 per cent had remained the same for the experimental group. In the control group, only 10 per cent or one of the students improved, 40 per cent remained the same, and 50 per cent lost points the same year.

The dramatic changes in the junior high school and the encouraging ones in the elementary school are greater than the results in the senior high school group (grade 9, 10, and 11). Although there are common requirements, as explained earlier in this paper, for the selection of these subjects, nevertheless the requirements of only grades and test scores in themselves leave a wide range of

other variables that could influence the results. One of the important variables is the presence of a father in the counseling interview. On the basis of previous experience, the results seem to be more pronounced and more consistent when the father is involved. For an example, the one student in the fifth grade who made no improvement during the year or who did not improve between the first and fourth marking periods, was the child who lived with a single parent and the mother alone participated in the project. Experience in the seventh and ninth grade group also would indicate that it is better to have the father participate in the project. However, the mere presence of the father does not, in itself, mean an improvement. There are a few isolated cases in the senior high school group, including the ninth grade, in which the father participated and there were losses in grade points. Two of these families had previously been in psychiatric treatment.

The lack of improvement in a large percentage of cases in the senior high school group, including the ninth grade, is one that needs to be examined more closely. It, no doubt, could be influenced by the chance selection of these eleven students. The professional workers in psychology, psycho-psychiatry, counseling, and social workers have found the high school group extremely challenging. The results secured in the ninth grade group at Lexington were contrary to what had been secured in two previous experiments with the ninth grade group at Meadowbrook Junior High School in Newton where the ninth grade experimental groups made significant improvement over the controls. There is a difference in background of the students, but in the case of the Lexington group, the ninth grade being placed with the other grades (10, 11, and 12) of the senior high school constitutes problems in the socialization of the child which does occur when the ninth graders are the top group in a junior high school. Another factor in this experimental group is the previous experience with disturbance within the family. In the case of the five students chosen in the ninth grade group, two of the families have had a history of mental health clinic and psychiatric treatment. In the third case, the father was an alcoholic and in the fourth case the father refused to participate. The one student who did improve two points was a girl from a family where the father and mother came regularly for their appointments.

The senior high school group, nonetheless, is a challenging one and parental counseling with this group needs experimentation with different approaches. Possibly the best results could be secured when the adolescent and the parents meet together more frequently. Part of the fifteen weeks - or approximately one-half of the sessions - for the experimental group might be spent with the adolescent and his parents talking together.

In addition to the improvement in grades with the control group where the parents had been counseled, there were a number of other valuable by-products of the counseling. Many parents reported that not only the grades of the student who had been chosen by the school for special attention during the counseling period had improved, but the children in the family who were younger and older also improved. These parents employed the same techniques for the entire family that they were learning for special attention to the low-achieving student.

At the last interview with the parents, a structured questionnaire was used to ask the parents their impressions and feelings concerning this counseling project. A summary of the responses given in the seventh and the ninth grade groups indicated that nearly all of the parents said they were praising their children more. In addition, they were doing other things for and with the children such as writing letters to them, conducting family group sessions, having

the children taken by the father for lunch or for other trips, and engaging in family projects of one kind or another. In regard to the direct consultation method that was used in these counseling sessions, the parents positively approved of this method and felt that it was the first time in the school that someone had really taken an interest in their child. Each family felt that there had been some behavior improvement in the child during the year. All families felt that the child had become less argumentative, more responsible to parental suggestions, and that the child was becoming more independent. The amount of homework performed by the child had increased anywhere from three to four times, at least when they made a general comparison with the previous year. Nearly all the parents felt that their other children had profited from the change in parental approach to both school work and family relationships.

Specific comments are woth note and these have been taken largely from the junior high school tape. (1) "We should know that (we ought to praise children) but it isn't clear until someone tells you how." (2) "My attitude towards the children is more positive. I realize how easy it is to criticize and forget to praise and uplift." (3) "We go out of our way to recognize and acknowledge that progress has been made." (4) "We get lots of help on how to handle eight children that improved our marriage because we didn't argue over the treatment of the children. We think 'praise' then will put a positive emphasis on what is good. Takes a lot of tongue-biting but we can see now that the adolescent needs so much reassurance and it really works." (5) "After all the psychology we both had in college, this is the first time we've ever understood how to apply it at home. It makes perfectly good sense. Since we felt that the school cared about our child, we couldn't help but put more effort into it ourselves." (6) "Our child found that the school and the parents really cared about her." (7) "I have developed patience and learned not to be drawn into arguments. Our child seems to like her home better now."

Summary

The results of the parental counseling of the 26 students whose parents engaged in the program seem to be extremely encouraging. When all students are considered, 54 per cent of the group whose parents were counseled for approximately seven hours, improved in one letter grade in one or more courses when the group whose parents were not counseled only 19 per cent improved in one grade in one or more courses. In the experimental group, only 23 per cent lost one or more letter grades during the year, when they were compared with the previous year, and 50 per cent of the 26 students in the control group lost one or more points.

The results in the junior high school were particularly encouraging. This was the first time that parental counseling has been conducted with parents of seventh grade students. The hiatus from the sixth to seventh grades in most junior high schools is usually a traumatic one with letter grades, in general, being slightly lower in the seventh grade than they were in the sixth grade. The usual difficulty in the seventh grade makes the results in Lexington all the more meaningful. In the junior high school there were, then, for these ten students an average improvement in three subjects of one letter grade. This raises a question of whether other counseling or treatment techniques can secure such marked grade improvement within as brief space of time. Approximately 7½ hours were spent with each pair of parents.

Our particular approach can be explained in terms of current ego psychology. In order to work productively and creatively, the personality requires a trustworthy environment where it can function with safety and assurance. In other words, for the child to do well in school, he must find the environment reassuring, rewarding, and one in which he has some confidence. A change in behavior, then, will not occur unless there is some kind of intervention in the environment. The change from a threatening to an accepting environment allows the child's ego to function on a more affective level and he will grow and develop in the role that is expected of him, namely his schoolwork, if it is rewarded and recognized.

The results in the senior high school, including the ninth grade, are less dramatic but not entirely discouraging. The improvement was slightly greater in the experimental group and the losses were not as great in this group as they were in the non-counseled group. The senior high school is a different social structure. The average adolescent can be miserably anxious in this situation which is making so many demands on him while he is struggling with an identity crisis and concomitantly attempting to emancipate himself from his parents. He becomes, then, easily infected by disturbed children from dysfunctioning homes. The acting-out behavior can be treated by having the parents and the adolescent talk together with the counselor.

Addendum (A)

The success of this initial project in parental counseling is due to the skill, devotion, and enthusiasm of the six counselors who participated in it. They gave extra time during the week in the form of attendance at a Tuesday morning seminar and in returning evenings in order to see parents. This work was over and above their regular assignments. Gratitude is expressed to all of them, including Dr. J. Monderer for excellent cooperation and support.

John V. Gilmore

Addendum (B)

It is apparent that regularly scheduled parental consultations held as a regular feature of a counselor's responsibility are time-consuming. In this project, parents were seen for fifteen half-hour sessions. Therefore, each set of parents took approximately eight hours of counselor time during the year. If each counselor counsels five couples each semester, he will spend the equivalent of two full weeks a year on parent consultations with ten families. These two weeks would ordinarily be spent at normal counseling activities, primarily with small groups or individual students.

We must, then, be concerned with the question of with whom the time is best spent. Assuming that we are discussing the attitude and performance of ten moderately under-achieving students and that we shall judge the effect of counseling by the most universally available criterion, letter grades, we must determine whether eight hours spent with a student produces greater change than when parents alone are involved. (The change would need to be "greater" in order to justify its lack of applicability to siblings. When working with parents, one notes how naturally they extend the counselor's suggestions to encompass the whole family, and they customarily ask for some direction of their other child-

ren.) At the junior high school level, the answer is clear. At the elementary and high school levels, the answer is not so clear, but consulting with parents does promote changes in student performance far in excess of the level considered "successful" when students are counseled alone. Those who have worked with underachievers are painfully aware of the difficulties inherent in attempting to counteract the long-term downward trend of their grades - no matter what direct, indirect, group, individual, regular, or intermittent approach is used. Yet, we see when parents are counseled, in nearly all of the cases in this study the effect has been to slow, halt, or reverse the established pattern. (It must be remembered that these results were obtained by counselors who were concurrently students of the method providing a rationale for continuing the policy of holding the training sessions during the school day. Since most of the counselors returned in the evening to work with parents, the question of time "lost" should not become an issue.) Thus, we must conclude that taking direct time away from the student in order to work with his environment is not only worthwhile, but in many cases the preferable approach - that the student indirectly gets a greater return on the counselor time than he would if he were to have used that time himself.

As has been previously noted, consulting with one parent of a two-parent home appears to be the preferred arrangement in changing student behavior. Both parents should be willing to become involved in order to secure maximum benefit from the eight hours of counseling. We must, then, make every effort to encourage parents to attend regularly as a couple. The parents of under-achieving students are often not able to arrange a meeting time during the day with the counselor. Therefore, the counselor who decides to work with parents on a regular basis must be prepared to spend either early morning or evenings doing so. Most counselors are willing to devote extra time to their responsibilities for emergencies, to reduce an unusual work load at irregular intervals, or to hold a parent conference. There also exists the occasional altruistic counselor willing to spend one evening a week with parents at no extra pay in addition to his regular hours. In the long run, the reliance on the altruism of a few counselors to accomplish a job of such magnitude and potential value cannot be secured. The question as to the future of parent-counseling programs, if the altruists were to leave, indicates that we must view parent counseling, outside of normal school hours, as an integral part of some counselors' activities. It is, therefore, suggested that counselors who regularly devote an evening of 3-3½ hours per week to consulting with parents receive compensatory time during the week to be taken at a time mutually agreeable to the counselor and his principal. Another alternative is compensatory pay at a rate of eight to ten per cent of base salary (assuming a case load of from fifteen to twenty sets of parents per year). Either of these alternatives would give considerably greater encouragement for counselors to seek the training necessary to be qualified to perform this essential counseling function.

Kathy Pigott

Follow-Up Study Procedure and Results

On February 16, 1968 (four years and eight months after graduation from Lexington High School), the follow-up study survey was sent to 373 students of the class of 1963. This included graduates and those who had "dropped out" and did not graduate with their class.

Additional mailings were sent March 29 and May 24, 1968 and, as a group of "change of addresses" was made, it was remailed. Follow-up was also made by phone. Parents' cooperation was a big help in spurring the returns from students away from home.

Of the 373 surveys sent, 260 or 70% were returned with some information recorded.

In computing the totals of individual questions or two or more different questions, the totals and percentages are based on the total number responding to that particular question or specific item, not on the total number of survey returns.

Marital Status

Approximately four years and eight months to five years after graduation year, 1963, approximately 54% of the 255 students responding were still single.

Marital Status #1

	Married		Single		Other	
Total	#	%	#	%	#	%
255	114	44.71	138	54.12	3	1.18

Years of Schooling

The question asked of those responding to the survey was "Since graduation from high school, have you earned 1) a degree; 2) a diploma; 3) a certificate; 4) none of these." Of the 260 returned 236 or 90.8% answered this question.

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1963 #2

Degree		Diploma		Certificate		None		Totals	
#	%	#	%	#	%	#	%	#	%
100	42.4	29	12.3	31	13.1	76	32.2	236	100.

Number of years of formal schooling completed beyond high school was the next question asked.

Years of Schooling Completed Beyond High School #3

0 Years		1 Year		2 Years		3 Years		4 Years		5 Years		6 Yrs.		Totals	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
55	21.2	27	10.3	44	16.9	29	11.1	80	30.8	25	9.6	0	--	260	99

Student Status

There were 254 responses on the 260 returns answering their present status after High School.

Chart #4 indicates:

18.9% of the students were attending school or college.
7.5% were attending school or college and employed.
46.5% were employed full-time.
2.0% were employed part-time.
1.2% were unemployed.
15.7% were homemakers full-time.
7.9% were in the armed forces.

1963 Student Status #4

Attending School or College		Att.Sch.cr College & Employed		Employed Full Time		Employed Part Time		In Voluntary Program		Un-Employed		Home-Maker		Armed Forces		Other		Totals	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
48	18.9	19	7.5	118	46.5	5	2.0	0	0	3	1.2	40	15.7	20	7.9	1	0.4	254	100.1

Suggestions for Improvement

The question asked of the Lexington High School students surveyed was: "What suggestions might you give for improving the program, service or anything else to do with high school?"

Of the 260 returns, 137 or 52.6% did not answer this question. Those making one or more responses were 123 or 47.3%. The total number of responses made by 123 students were 188.

The answers recorded were classified in eight categories, as seen in chart #5.

Suggestions for Improvement #5

Codes	Descriptions	#	%
01-19	Instructional & Curriculum Improvement	79	42.0
20-29	General Improvement in Guidance	28	14.8
30-39	Improvement in Educational Guidance	7	3.8
40-49	Improvement in Vocational Guidance	2	1.0
50-59	Change in General Atmosphere, Attitude and Administration	31	16.2
60-69	Meet personal needs of students better	14	7.3
70-79	Other types of Suggestions	4	2.0
90-99	Otherwise Unclassifiable Sugg.	23	12.3
	Totals	188	99.4

Suggestions for Improvement

This chart #6 is an expansion in depth of chart #5, showing in detail the breakdown of "Suggestions for Improvement" as recorded by 123 students.

The ten most frequently mentioned "Suggestions for Improvement" were:

1.	Additional course recommended	#17 - 9.0%
2.	Better guidance	15 - 7.9%
3.	Improve quality of courses & teaching	13 - 6.9%
4.	Relate curriculum of courses to educational and vocational goals	10 - 5.3%
5.	Stress academic skills (reading, writing)	9 - 4.8%
6.	Provide more freedom or voice for students	8 - 4.2%
7.	Improve English preparation	6 - 3.2%
8.	Make student think for themselves	6 - 3.2%
9.	Stress enrichment courses	5 - 2.7%
10.	Have counselors more available	5 - 2.7%

For further details, consult chart #6.

Suggestions for Improvement #6

Code	Description	Response #	Response %
01-19	INSTRUCTIONAL AND CURRICULUM IMPROVEMENTS	79	42.0
01	Improve quality of courses and teaching (smaller student-teacher ratio - more imaginative instruction)	13	6.9
02	Improve English preparation (stress comp. drama	6	3.2
03	Stress academic skills (reading, writing, notetaking)	9	4.8
04	Stress practical skills (business courses-work-study	3	1.6
05	Provide life-adj. courses (sex ed.home-mgmt.	2	1.1
06	Give better indiv. help (after-school,teacher-student evaluation conferences)	2	1.1
07	Gear curr. to spec. needs (high,av.,low abil.)	1	0.5
08	Stress enrich;.courses (fine arts, more elect.)	5	2.7
09	Provide better citiz. educ. (gov. politics)	1	0.5
10	Provide " continuity from year to year	0	.0
11	More variety in instrs. (lg. lectures, small grp. disc., use of teaching aids, Ind. Study)	4	2.1
12	Better preparation for college	1	0.5
13	Better academic related bus. subjects	3	1.6
14	Provide more prep. for college boards	0	.0
15	Provide better tchrs. (only exp. teachers)	0	.0
16	Prov. lang. instr. for more students (req. lang for all, start in elem. school)	2	1.1
17	Eval. student on present perf., not past	0	.0
18	Additional courses recommended	17	9.0
19	Relate curriculum of courses to ed & voc.goals	10	5.3

1963 Suggestions for Improvement #6 (cont.)

Code	Description	Response #	Response %
20-29	GENERAL IMPROVEMENT IN GUIDANCE	28	14.8
20	Better guidance	15	7.9
21	Have counselors more available (reduce Counselor-student ratio)	5	2.7
22	Have counselor contact student more often and know him better (begin in gr.9 regular appointments)	1	0.5
23	Give more direct guidance (offer help and more pratical planning student may not know about)	3	1.6
24	Specialized guidance (art, engineering, medical)	1	0.5
25	Help with alternatives to college (those not ready)	1	0.5
26	More contact & help for potential dropouts	0	.0
27	Help in formulating goals and decision-making	2	1.1
30-39	IMPROVEMENT IN EDUCATIONAL GUIDANCE	7	3.8
30	Better help in selecting a college	2	1.1
31	Better info. for educ. choice (aid, majors, tests)	2	1.1
32	Encourage contact with colleges (coll. confer. visits)	2	1.1
34	Advise curriculum placement	0	.0
35	Prepare students to know what to expect in college	1	0.5
40-49	IMPROVEMENT IN VOCATIONAL GUIDANCE	2	1.0
40	Better vocational guidance	1	0.5
41	Help in formulating vocational goals	0	.0
43	Better vocational information	1	0.5
44	More vocational testing	0	.0
47	Job placement services	0	.0
50-59	CHANGE IN GEN. ATMOSPHERE, ATTITUDE AND ADMINISTRATION	31	16.2
50	Reduce emphasis on marks (less homework)	3	1.6
51	Increase emphasis on marks (more homework-work harder)	1	0.5
52	Reduce pressure about college	3	1.5
53	Counteract effects created by levels system	4	2.1
54	Provide more freedom or voice for students (more permissive atmosphere, give more responsibility)	8	4.2
55	Provide more regulations, stronger discipline	3	1.6
56	Reduce pressure in general	1	0.5
57	Counteract overemphasis on curriculum	1	0.5
58	Make students think for themselves (encourage creativity)	6	3.2
59	Treat students with more respect	1	0.5

1963 Suggestions for Improvement #6 (cont.)

Code	Description	Response #	Response %
60-69	MEET PERSONAL NEEDS OF STUDENTS BETTER	14	7.3
60	Develop good study habits	3	1.5
61	Motivate students better	0	.0
62	More attention to individual needs	0	.0
63	Give more attention to average students	4	2.1
64	Give more attention to exceptional students	0	.0
65	Provide better help with emotional problems	0	.0
66	Closer relationship between counselor and student	0	.0
67	Closer relationship between teacher and student	4	2.1
68	Better exposure to vocations (career days, trips)	1	0.5
69	Expand work-study program with good supervision	2	1.1
70-79	OTHER TYPES OF SUGGESTIONS	4	2.0
70	More after graduation contact (follow-up)	0	.0
71	More active alumni association (reunions)	0	.0
72	Less educational experimentation	1	0.5
73	Better social activities	0	.0
74	Have students in same curr. in same homeroom	0	.0
75	More emphasis on physical fitness	0	.0
76	School should encourage more participation in extra activities non-curr.	1	0.5
77	Better communication between Admin. & student	1	0.5
78	Better communication between Admin. & parent	1	0.5
90-99	OTHERWISE UNCLASSIFIABLE SUGGESTIONS	23	12.3
90	Suggestion generally favorable	13	6.9
91	Suggestion generally unfavorable	2	1.1
99	Suggestion uncodeable	8	4.3
00	Respondent answered "none"	0	.0
	Total	188	99.4

1963

High School Experiences of Greatest Value

The question asked former Lexington High School Students surveyed was: "What high school experiences were of greatest value to you in preparation for the subjects you are now studying; your present job; your life in general?"

Of the 260 returns 119 or 45.8% did not answer this question. Those making one or more responses were 141 or 50.3%. The total number of responses made by students were 280.

Responses covered a wide range of subjects and were grouped into logical categories by number of specific responses and percents. Consult chart #7.

Of the twelve basic categories, the five most often mentioned were:

		#		%
1.	Non-academic Experiences	61	-	21.7
2.	English	48	-	17.2
3.	Personal contacts	41	-	14.6
4.	Business courses	22	-	8.0
5.	Sciences	18	-	6.4

High School Experiences of Greatest Value

This is an expansion in depth of chart #7, showing in detail the breakdown of "Experiences of Greatest Value" as recorded by 141 students.

The 10 "experiences"mentioned by students most often were:

		#		%
1.	Extra-Curricular & Social Events	27	or	8.9
2.	English	25	or	8.2
3.	Other Personal Contacts	18	or	5.9
4.	Teacher	18	or	5.9
5.	Source Theme	16	or	5.3
6.	Clubs, misc.	15	or	4.9
7.	Math	12	or	3.9
8.	Typing	10	or	3.3
9.	Language	9	or	3.0
10.	Science &)	(7	or	2.3
	Electronics)	(7	or	2.3

For further details refer to chart #8.

1963 High School Experiences of Greatest Value #7

by Categories

Codes	Descriptions	Total #	Total %
01	Academic Offerings	1	0.4
02-07	English	48	17.2
08-13	Social Sciences	11	3.9
15-18	Math	13	4.7
20-22	Languages	6	2.2
27-30	Sciences	18	6.4
32	Independent Study	2	0.7
26-46	Business Courses	22	8.0
48-52	Home Economics	8	2.9
54-58	Industrial Arts	14	5.0
60-81	Arts & Misc.	12	4.4
82-90	Non-Academic Experience	61	21.7
92-96	Personal Contacts	41	14.6
97	Uncodeable	23	8.2
Totals		280	100.3

1963 High School Experiences of Greatest Value #8

Code	Description	Response	
		#	%
01	ACADEMIC OFFERINGS	1	0.4
02-07	ENGLISH	48	17.2
02	English	26	9.3
03	English lit.	2	0.7
04	Creative Writing	2	0.7
05	Reading & Study Lab.	2	0.7
06	Public Speaking	1	0.4
07	Source Themes Etc.	15	5.4
08-13	SOCIAL SCIENCES	11	3.9
08	American Problems	0	.0
09	Social Studies	1	0.4
10	World Problems	2	0.7
11	History	6	2.1
12	Latin America & Far East	0	.0
13	Political Science	2	0.7
15-18	MATH	13	4.7
15	Math	12	4.3
16	Business Math	0	.0
17	Computers	0	.0
18	Matrix Algebra & Problems	1	0.4
20-22	LANGUAGE	6	2.2
20	Language	3	1.1
21	Spanish	1	0.4
22	French	2	0.7
27-30	SCIENCE	18	6.4
27	Science	7	2.5
28	Biology	3	1.1
29	Physics	4	1.4
30	Chemistry	4	1.4
32	INDEPENDENT STUDY	2	0.7
36-46	BUSINESS	22	8.0
36	Economics	1	0.4
37	Business	1	0.4
38	Accounting	4	1.4
39	Typing	10	3.6
40	Personal Typing	0	.0
41	Business Machines	2	0.7
42	Stenography	1	0.4
43	Transcription	0	.0
44	Business Law, Rec. & Org.	1	0.4
45	Clerical Practice & Filing	2	0.7
46	College Notetaking	0	.0

1963 High School Experiences of Greatest Value #8 (cont.)

Code	Description	Response #	Response %
48-52	HOME ECONOMICS	8	2.9
48	Home Economics	4	1.4
49	Psychology	3	1.1
50	Child Psychology	1	0.4
51	Clothing & Construction	0	.0
52	Foods & Nutrition	0	.0
54-58	INDUSTRIAL ARTS	14	5.0
54	Industrial Arts	4	1.4
55	Power Mechanics	0	.0
56	Tech. Drawing	3	1.1
57	Arch. Drawing	1	0.4
58	Electronics	6	2.1
60-81	ARTS & MISCELLANEOUS	12	4.4
60	Library	0	.0
62	Art	4	1.4
67	Humanities	1	0.4
69	Physical Education	0	.0
70	Student Leader Corp.	0	.0
72	Music	3	1.1
73	Orchestra	1	0.4
74	Band	1	0.4
75	Chorus	2	0.7
76	Drama	0	.0
79	Discussions & Debates	0	.0
80	Driver Education	0	.0
81	Work-Study Program	0	.0
82-90	NON-ACADEMIC EXPERIENCES	61	21.7
82	Non-Academic Experiences	0	.0
83	Musical & Dramatic Acting	2	0.7
84	F.T.A. & F.N.A.	0	.0
85	Publications	2	0.7
86	Sports	16	5.7
87	Clubs, misc.	16	5.7
88	Student Government	0	.0
89	School Assistance	0	.0
90	Extra-Cur. & Social Events	25	8.9
92-96	PERSONAL CONTACT	41	14.6
92	Other Personal Contacts	18	6.4
93	Teacher	18	6.4
94	Counselor	0	.0
95	Peers	5	1.8
96	Administration	0	.0
97	UNDECIDABLE	23	8.2
	Total	280	100.3

Job Title and Salary Range

The following questions were asked of those who are employed full-time.

1. Title of your present job:
2. Describe briefly the type of work you do:
3. Within what range does your weekly salary fall:

Job titles were classified according to the "Dictionary of Occupational Titles 1965, Volume I, Definitions of Titles, Third Edition."

Nine occupational categories are identified by the numbers 0-9. The first digit of the D.O.T. number in chart #9 indicates the category of occupations for that job.

1963 Occupational Categories #9

D.O.T. No.	Description	Totals #	Totals %
0) 1)	Professional, Tech., & Managerial	71	57.7
2	Clerical & Sales	38	30.9
3	Services	3	2.4
4	Farming, Fishing, Forestry, etc.	0	---
5	Processing	0	---
6	Machine Trades	3	2.4
7	Bench Work	1	.8
8	Structural Work	4	3.2
9	Miscellaneous	3	2.4
	Totals	123	99.8

Salary Range

This chart gives the breakdown of the 116 responses.

Totals in charts #10 and #11 vary as 7 did not answer salary range after giving job occupation.

The majority were earning an average of $76.00-$125.00 per week.

Below $75	-	5	= 4.3%
$76 - $125	-	68	= 58.6%
$125 - $175	-	37	= 31.9%
$176 - $225	-	4	= 3.4%
$225 - $275	-	1	= 0.9%

One person worked in the "over $275 per week range."

Salary Range #10

	1) Below $75		2) 76-125		3) 126-175		4) 176-225		5) 226-275		6) More Than 275	
Total	#	%	#	%	#	%	#	%	#	%	#	%
116	5	4.3	68	58.6	37	31.9	4	3.4	1	0.9	1	0.9

1963 Job Title & Salary Range #11

D.O.T. No.	Title	No Salary Recorded	Below $75.	76.-125.	126.-175.	176.-225.	226.-275.	Over 275.
000	Total-137							
003	Draftsman Electrical				2 1.6			
005	Draftsman Design				3 2.4			
007	Engineer				2 1.6			
020	Programmer & Co-ordinator				1 0.8			
029	Lab. Tech.			1 0.8				
045	Asst. Psy.Research	1 0.8						
050	Market representative				1 0.8			
075	Nurse			2 1.6	6 4.9			
078	Medical Lab.Tech.	1 0.8		4 3.3				
079	Medical Assistant	1 0.8		2 1.6				
090	Research Assistant			1 0.8				
091	French Teacher				1 0.8			
092	Teacher	1 0.8		8 6.5	2 1.6			
094	Spec. Ed. Teacher			1 0.8				
099	Teach.-Adult Educ.English	1 0.8						
120	Minister			1 0.8				
132	Indexer Assoc.Writer			1 0.8	1 0.8			
.53	Prof. Ice Skater			1 0.8				
163	Asst. Mgr.				1 0.8			
164	Mgr. Adv.& Promotion				1 0.8			
165	Public Relation Asst.				1 0.8			
166	Personnel Interviewer				1 0.8			
169	Underwriter			2 1.6				

1963 Job Title & Salary Range #11 (cont.)

D.O.T. No.	Title	No Salary Recorded		Below $75.		76.-125.		126.-175.		176.-225.		226.-275.		Over 275.	
183	District Mgr.			1	0.8										
186	Comptroller Asst.					1	0.8								
187	Shops - Mgr.					2	1.6								
189	Mgr. (Trainee)					2	1.6	8	6.5			1	0.8	1	0.8
195	Social Worker					3	2.4								
201	Secretary	1	0.8			18	14.6	1	0.8						
203	Tech.Typist			2	1.6	2	1.6								
209	Clerk Typist					2	1.6								
210	Bookkeeper & Machine Oper.					4	3.2								
212	Bank Teller					1	0.8								
216	Statistician (Medical)					1	0.8								
221	Unit Coordinator					1	0.8								
231	Supply Clerk			1	0.8										
241	Claims Adjuster							1	0.8						
249	Clerk (Draftsman)					1	0.8								
280	Sales-Auto									1	0.8				
285	Dress Saleswoman					1	0.8								
332	Hair Stylist							1	0.8						
352	Stewardess					1	0.8								
373	Fireman									1	0.8				
620	Auto Mechanic									1	0.8				
630	Installation & Repair Eng.							1	0.8						
639	Repairs Bicycles			1	0.8										

1963 Job Title & Salary Range #11 (cont.)

D.O.T. No.	Title	No Salary Recorded		Below $75.		76.-125.		126-175.		176.-225.		226.-275.		Over 275.	
723	Appliance Repairman					1	0.8								
809	Foreman							1	0.8						
822	(Install) Tel.Services	1	0.8					1	0.8						
840	Painter					1	0.8								
906	Truckdriver					2	1.6			1	0.8				
	Total														
	# 123	% 100.1	7	5.7	5	4.1	68	55.3	37	30.1	4	3.3	1	0.8	1	0

1963

List of Employers

The following question was to be answered only by those employed full time. "Please indicate the neme of the company that First employed you full time?"

On chart #12 this list was alphabetically set up, complete with city or town, state and D.O.T. number.

117 named their employer.
18 were employed in Lexington.
22 were employed out of state in U.S.A.
1 was employed out of the country.

The majority of those answering were employed in cities and towns of the Greater Boston Area and towns along 128.

Companies employing more than one student from surrounding cities and towns were:

Town of Lexington - Lexington
Mt. Auburn Hospital - Cambridge
N.E. Tel. & Tel. - Boston
Raytheon - Lexington and Bedford
Western Instrument - Lexington

Status of Post High School Education

The following question was to be answered only by those employed full time: I have 1) begun 2) completed 3) discontinued or 4) not begun a post-high school education or training program.

There were 114 responses on the 260 returns or 43.8%.

57% had completed a Post High School education or training program.
18% had begun such a program.
8% had begun and discontinued such a program.
23% had not begun at all.

Status of Post High School Education #13

Total		Begun		Completed		Discontinued		Not Begun	
#	%	#	%	#	%	#	%	#	%
114	43.8	18	15.8	65	57.0	8	7.0	23	20.2

1963 Employers #12

	Employer	Town or City	State	D.O.T.
1	Acton Construction Co.	Acton	Mass.	906
2	Aetna Insurance Co.	Boston	Mass.	169
3	Aker Advertising Agency	----	Mass.	183
4	Arkwright-Boston Ins. Co.	Waltham	Mass.	210
5	Arnold Corp.	----	Ill.	003
6	Avco Corp.	Wilmington	Mass.	165
7	Bedford Public Schools	Bedford	Mass.	092
8	Bell Tel. Lab.	Murry Hill	N.J.	045
9	Bell Tel. Lab.	No.Andover	Mass.	822
10	Borek Association Inc.	Boston	Mass.	003
11	Boston Survey Consultant	Boston	Mass.	005
12	Boston Univ. Graduate School	Boston	Mass.	201
13	Brookline Hospital	Brookline	Mass.	078
14	Burlington Public Schools	Burlington	Mass.	092
15	Burroughs Corp.	Lexington	Mass.	050
16	Carlisle Public Schools	Carlisle	Mass.	092
17	Chandler Nursing Home	----	Maine	203
18	Chelmsford Public Schools	Chelmsford	Mass.	092
19	Childrens Cancer Research Found.	Boston	Mass.	078
20	Civil Air Transport	Washington	D.C.	201
21	Copley Business Service Inc.	Boston	Mass.	189
22	Defelice Construction Co.	Lexington	Mass.	201
23	Digital Equipment Corp.	Maynard	Mass.	007
24	Dorchester Public Schools	Dorchester	Mass.	092
25	Douglas Aircraft Corp.	----	Calif.	201

1963 Employers #12 (cont.)

	Employer	Town or City	State	D.O.T.
26	Dover Public Schools	Dover	Mass.	092
27	Ebony Magazine	Chicago	Ill.	132
28	Edwards of Lexington	Lexington	Mass.	189
29	Evanston Hospital	Evanston	Ill.	075
30	Farrington Real Estate	Cambridge	Mass.	840
31	Federal Aviation Administration	Boston	Mass.	201
32	Foreign Cars of Belmont	Belmont	Mass.	280
33	Framingham Public Schools	Framingham	Mass.	091
34	Friendly Ice Cream Corp.	Woburn	Mass.	189
35	Giant Stores	Waltham	Mass.	189
36	Green, Winslow M.D.	Lexington	Mass.	201
37	Hancock Nursing Home	Lexington	Mass.	079
38	Hartman Engineers	Victor	N.Y.	209
39	Hi-G Inc.	Windsor Locks	Conn.	164
40	Holiday on Ice International	N.Y.C.	N.Y.	153
41	Holliston Public Schools	Holliston	Mass.	092
42	Itek Corporation	Lexington	Mass.	079
43	Jacksonville State Hospital	Jacksonville	Ill.	195
44	John Hancock Life Insurance Co.	Boston	Mass.	189
45	Jordan Marsh Co.	Boston	Mass.	723
46	Kazis, Dr.	Boston	Mass.	078
47	Lawrence Memorial Hospital	Medford	Mass.	075
48	Leasco Systems & Research Corp.	College Park	Md.	132
49	Lexington Medical Laboratory	Lexington	Mass.	078
50	Lexington News Co.	Lexington	Mass.	189

1963 Employers #12 (cont.)

	Employer	Town or City	State	D.O.T.
51	Lexington Public Works	Lexington	Mass.	906
52	Lexington School Department	Lexington	Mass.	201
53	Lexington, Town of	Lexington	Mass.	195
54	Lexington Trust Co.	Lexington	Mass.	212
55	Liberty Mutual Insurance Co.	Boston	Mass.	241
56	Liberty Mutual Rehabilitation Clinic	Boston	Mass.	079
57	Lincoln Lab.	Lexington	Mass.	203
58	MacNeil Insurance Agency	Lexington	Mass.	210
59	Marlboro Fire Department	Marlboro	Mass.	373
60	Mass. Audubon Society		Mass.	231
61	Mass. Dental Society	Boston	Mass.	210
62	Mass. Dept. of Public Welfare	Springfield	Mass.	195
63	Mass. Electrical Construction	---	Mass.	906
64	Mass. General Hospital	Boston	Mass.	166
65	M. I. T.	Cambridge	Mass.	201
66	Mass. Rehabilitation Comm.	Boston	Mass.	249
67	McGraw-Hill Publishers	----	Mass.	285
68	McLean Hospital	Belmont	Mass.	201
69	Microwave Associates	Burlington	Mass.	007
70	Mitre Corporation	Bedford	Mass.	201
71	Mt. Auburn Hospital	Cambridge	Mass.	075
72	Mt. Auburn Hospital	Cambridge	Mass.	075
73	Multi-Service Reading Clinic	Cape Cod	Mass.	090
74	Needham Public Schools	Needham	Mass.	092
75	N. E. Deaconess Hospital	Boston	Mass.	221

1963 Employers #12 (cont.)

	Employer	Town or City	State	D.O.T.
76	New England Tel. & Tel.	Boston	Mass.	189
77	New England Tel. & Tel.	---	Mass.	822
78	New Hampshire Public Schools	---	N.H.	092
79	New London Instrument Co.	Newton	Mass.	005
80	Pan-Am World Airways	N.Y.C.	N.Y.	352
81	Parece Ignition Service	Arlington	Mass.	620
82	Penny, J.C.	Waltham	Mass.	189
83	Polaroid Corp.	Cambridge	Mass.	201
84	Purity Supreme Market	Bedford	Mass.	189
85	Raytheon	Bedford	Mass.	020
86	Raytheon	Bedford	Mass.	203
87	Raytheon	Lexington	Mass.	201
88	Regional Medical Project	Burlington	Vt.	216
89	Rittenberg & Rittenberg	Boston	Mass.	201
90	Ritz Beauty Salon	Arlington	Mass.	332
91	Royal Free Hospital	London	Eng.	078
92	Rust-Proofing & Metal Finish Corp.	Waltham	Mass.	187
93	Salem Public Schools	Salem	Mass.	092
94	Sears Roebuck	Buffalo	N.Y.	189
95	Shipley Corp.	Newton	Mass.	201
96	Simplex Time Recorder Co.	Cambridge	Mass.	630
97	Sky-Flite Luggage Corp.	---	N.Y.	189
98	Sloan Plastics Corp.	Acton	Mass.	189
99	Social Security Administration	Olympia	Wash.	169
100	Sophia's of Boston	St.Petersburg	Fla.	187

1963 Employers #12 (cont.)

	Employer	Town or City	State	D.O.T.
101	Spacerays, Inc.	Burlington	Mass.	201
102	Spectrum Systems Inc.	Waltham	Mass.	201
103	Star Market	Cambridge	Mass.	189
104	Steel Products Engineering Co.	Springfield	Ohio	189
105	Sweezey Inc.	Wilmington	Mass.	210
106	Sylvania Lighting Center	Danvers	Mass.	201
107	Tufts University	Medford	Mass.	203
108	United Methodist Church	Grand View	Ind.	120
109	W.S.B.K. - T.V.	Boston	Mass.	186
110	Waltham Hospital	Waltham	Mass.	075
111	Wentworth Institute	Boston	Mass.	005
112	Weston Instruments	Lexington	Mass.	201
113	Weston Instruments	Lexington	Mass.	809
114	White, Ralph	Lexington	Mass.	639
115	Wilmington Public Schools	Wilmington	Mass.	092
116	Wilson-Martin	Philadelphia	Pa.	029
117	Woburn Public Schools	Woburn	Mass.	092

1963

Name and Location of School or College

The following chart #14 is the list of names of schools and colleges as answered by students to the question "Name and location of school or college you are attending."

Schools and Colleges Attended #14

Name Reg. College and University	Total Atten	Name Reg. College and University	Total Attend
Athens College	1	Springfield College	1
Boston College	1	Stanford University	1
Boston University	10	Suffolk Law School (Uni.)	1
Brandeis University	2	Syracuse University	1
Colby College	1	Temple University	1
Columbia University	2	Tufts University	1
Cornell University	2	University of California	1
Emerson College	1	University of Connecticut	1
Franklin College	1	University of Illinois	1
Georgetown University	1	University of Mass.	3
Indiana University	2	University of North Carolina	1
John Hopkins University	1	University of Pittsburgh	1
Kentucky-Wesleyan College	1	University of Rhode Island	1
Mass. College of Pharmacy	1	University of Rochester	1
M. I. T.	1	University of Vermont	3
Merrimack College	1	University of Wisconsin	1
Northeastern University	3	Wagner College	1
Northwestern University	3	Williams College	1
Penn. State	1		
State Colleges			
Boston State	1		
Plymouth State (N.H.)	1		
San Jose State (Calif.)	1		
Specialized Schools		**Specialized Schools**	
John Robert Powers School	1	Plus School of Business	1
Northeast Inst. of Tech.	1	Wentworth Institute	1
Perry Normal School	1		
Foreign Colleges or Universities			
Goethe Institute - Germany	1		
McGill University - Canada	1		
Oxford.Univ.- Oxford, England	1		

1963

Regional Location of Schools

Of the 260 returns 71 or 27.3% answered this question. Chart 14A is a breakdown by regions of schools and colleges attended.

58% attended in the New England area.
20% attended in the Middle Atlantic States.
9% attended in the Mid-western states.
3% attended each in Southern and Western States.
6% attended foreign schools or colleges.

1) New England		2) Middle Atlantic		3) Mid-Western		4) Southern		5) South-Western		6) Western		7) Non-Contiguous		8) Foreign		Totals	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
41	57.7	14	19.7	6	8.5	3	4.2	0	0	3	4.2	0	0	4	5.6	71	99.9

1963

Type of Attendance at School or College

The question asked those attending school or college was "Type of attendance:

1) full time 2) part time 3) cooperative?"

A total of 69 out of 260 returns or 26.5% answered this question.

Over 81% of those responding attended school or college on a full time basis.

For further details consult chart #15.

Chart #15A gives the totals and percentages of the types of schools attended.

Chart #15B gives the totals and percentages of the type of attendance of schools attended.

1963 Type of School and Type of Attendance #15

	4 Year		Jr. College		Teachers College		Technical School		Nursing School		Business School		Prep. School		Others		Totals	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Full Time	22	39.3			1	1.8	3	5.4					26	46.4	4	7.1	56	100.
Part Time	2	18.2									2	18.2	4	36.4	3	27.3	11	100.1
Coop.											1	50.0			1	50.0	2	100.

Totals of Type of School Attended #15A

	4 Year		Jr. College		Teachers College		Technical School		Nursing School		Business School		Prep School		Others		Totals	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total	24	34.8	0	0	1	1.4	3	4.3	0	0	3	4.3	30	43.5	8	11.6	69	99.9

Totals of Type of Attendance #15B

	#	%
Full Time	56	81.2
Part Time	11	15.9
Cooperative	2	2.9
Total	69	100.0

Major

A total of 69 out of 260 returns responded to the question of school or college attended. Of this total, 63 or 91.3% listed their major. Six did not answer this section of the question.

On chart #16 of the majors listed, the 12 most frequently recorded were:

	#		%
1) Engineering	9	-	14.3
2) Psychology	5	-	7.9
3) Technical & Spec.	5	-	7.9
4) Economics	4	-	6.3
5) Education	4	-	6.3
6) English & Lit.	4	-	6.3
7) History	4	-	6.3
8) Business & Comm.	4	-	6.3
9) Law (Pre-Law)	3	-	4.8
10) Medicine (Pre-Med.)	3	-	4.8
11) Foreign Languages	3	-	4.8
12) Social Sciences	3	-	4.8

Majors #16

Code	Description	Totals	
		#	%
00	None	0	0
10	Bio. Sciences	2	3.2
13	Business & Commerce	4	6.3
16	Business School Courses	1	1.5
22	Economics	4	6.3
25	Education Elementary	4	6.3
28	Physical Education	1	1.5
31	Engineering	9	14.3
34	English and Literature	4	6.3
40	Foreign Languages	3	4.8
46	History	4	6.3
49	Home Economics	1	1.5
52	Law (& Pre-Law)	3	4.8
58	Math	2	3.2
61	Medicine & (Pre-Medicine)	3	4.8
64	Music	1	1.5
74	Physics	1	1.5
75	Chemistry	1	1.5
76	Psychology	5	7.9
79	Religion & Theology	2	3.2
85	Social Sciences	3	4.8
91	Technical & Specialized	5	7.9
99	Others	0	0
		63	99.4

Received Scholarship?

On chart #17 of the 69 respondents attending school or college, 28 or 42.4% received some form of scholarships. 38 or 57.6% were not receiving scholarships and 3 did not answer this question.

Scholarship Assistance #17

1) Yes		2) No	
#	%	#	%
28	42.4	38	57.6

School Transfer

Chart #18 shows the number of those respondents that were attending school or college, that had transferred from the school entered on graduation from high school. Four did not answer.

1963 School Transfer #18

1) Yes		2) No		0		Total	
#	%	#	%	#	%	#	%
34	49.3	31	44.9	4	5.8	69	99.7

Reason for School Change

Chart #19 gives the reason for school change of the 34 respondents that answered "yes" to above question on chart #18.

Reason for School Change #19

0) Normal Progression & Completion of Program		2) Unsatisfied with School		2) Personal Reasons		3) Change of Interest		4) Difficulties at School		5) Financial		6) Still attending		7) Work		8) Service	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
11	32.4	8	23.5	6	17.6	5	14.7	1	2.9	0	0	1	2.9	0	0	2	5.9